Method for the production of silicon carbide with a high specific surface and its use in high-temperature catalytic reactions.

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The invention is directed to a process for the production of fine grains of silicon carbide which are formed by an agglomerate of submicronic grains having a specific surface area that is at least 100 m2xg-1, which are intended in particular to serve as a carrier for catalysts for petrochemistry, and for catalytic reactions at elevated temperature which can attain 1000 DEG C., the process comprising reacting vapors of silicon monoxide SiO on carbon, being characterized by: generating vapors of SiO in a first reaction zone by heating a mixture SiO2+Si at a temperature of between 1100 DEG and 1400 DEG C., under a pressure of between 0.1 and 1.5 hPa; and, in a second reaction zone, contacting the SiO vapors with reactive carbon in the divided state with a specific surface area that is at least equal to 200 m2xg-1 at a temperature of between 1100 DEG and 1400 DEG C. Preferably, the reactive carbon is doped by an addition of from 1 to 10% by weight of a metallic element selected from uranium, cerium, titanium, zirconium, hafnium and lanthanides.

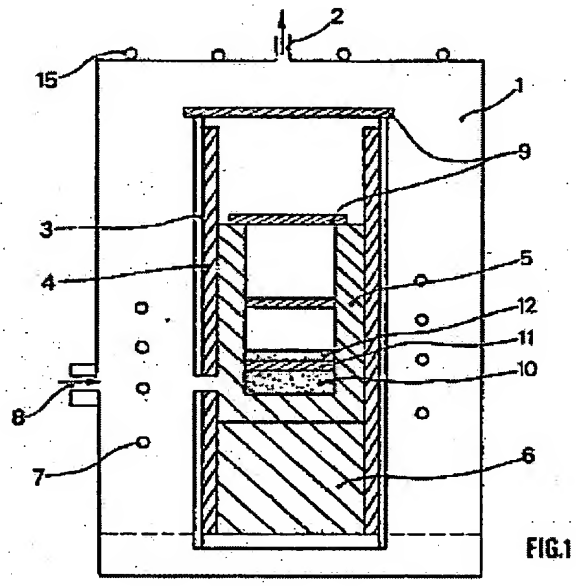

FIG.1